

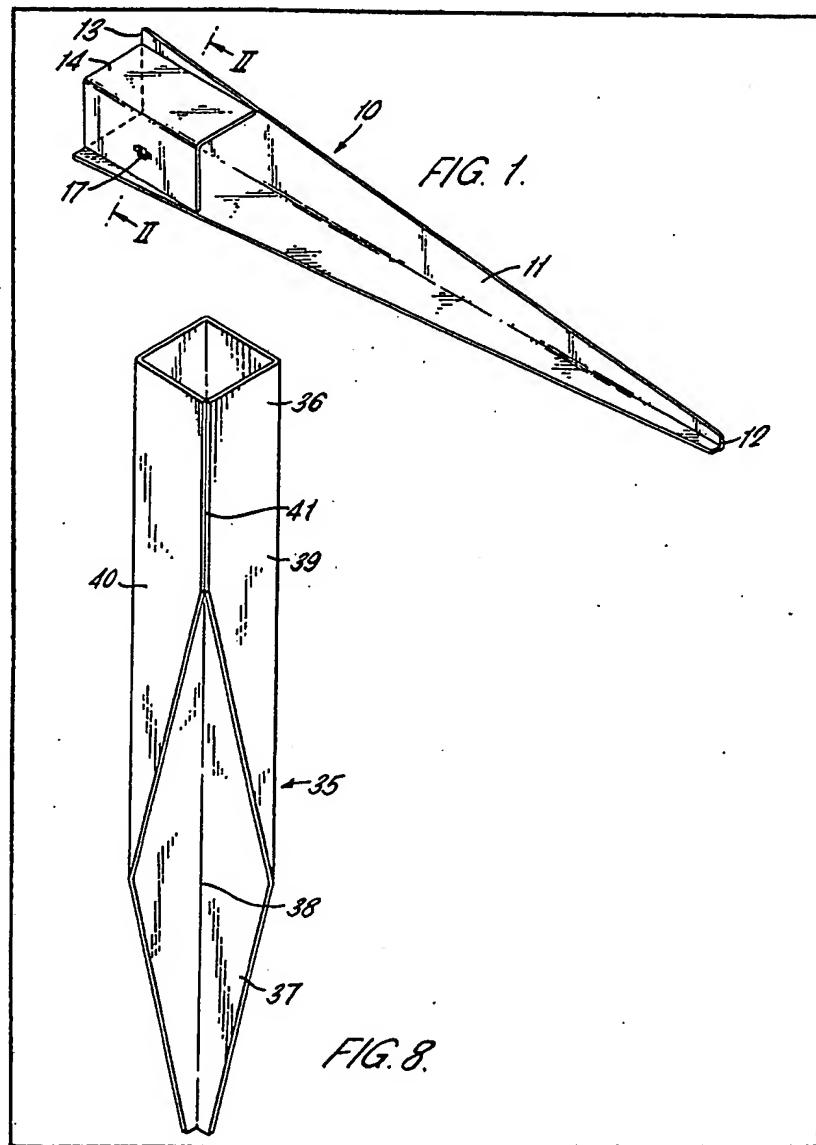
(12) UK Patent Application (19) GB (11) 2 030 613 A

(21) Application No 7928752  
(22) Date of filing 17 Aug 1979  
(23) Claims filed 17 Aug 1979  
(30) Priority data  
(31) 7834222  
(32) 22 Aug 1978  
(31) 7841349  
(32) 20 Oct 1978  
(33) United Kingdom (GB)  
(43) Application published  
10 Apr 1980  
(51) INT CL<sup>3</sup>  
E04H 12/22  
(52) Domestic classification  
E1B 26  
(56) Documents cited  
GB 1461802  
GB 1166929  
GB 1063835  
GB 880086  
GB 764052  
GB 622063  
GB 447922  
GB 415218  
(58) Field of search  
E1B  
(71) Applicant  
Specialmachinemakers  
Limited, Sandy Hill Lane,  
Ipswich IP3 0HY, Suffolk  
(72) Inventor  
Miles George Cutting  
(74) Agent  
Boult, Wade & Tennant

(54) Improvements in Post Supports

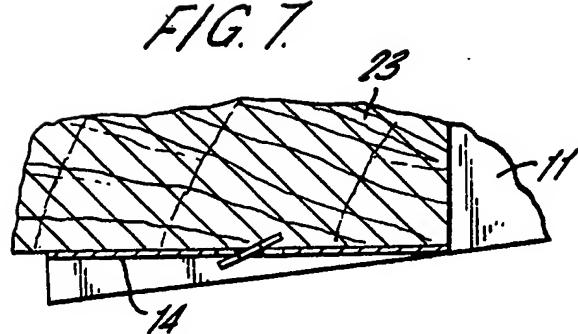
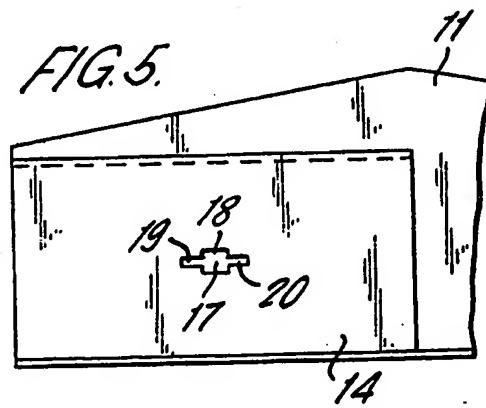
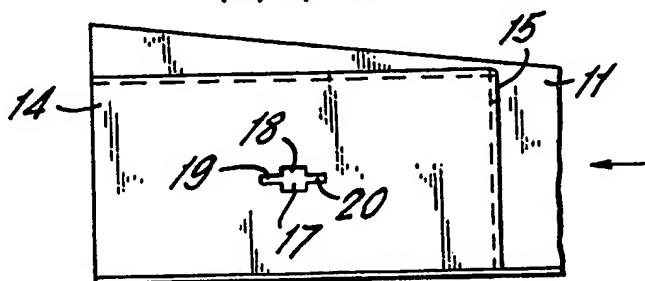
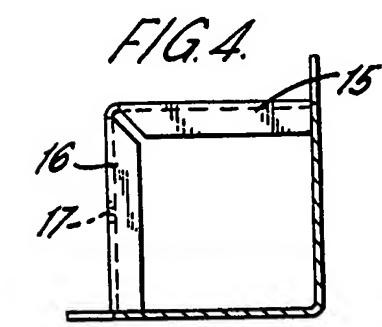
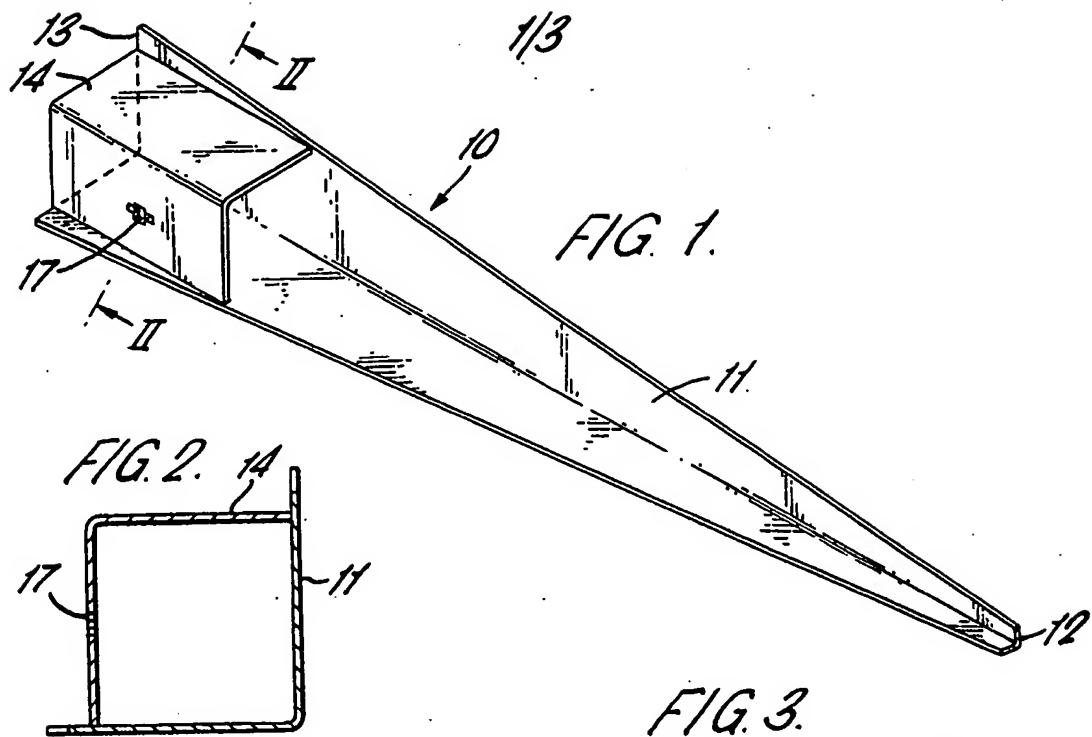
(57) A post support (10) comprises a first member (11) of V-shaped cross-section tapered towards one end (12) to provide a ground engaging portion. A second member (14) also a V-shaped cross-section is secured to the

first member (11) adjacent its other end (13) to provide a tubular housing for engagement by a post. A slot (17) is provided in the second member (14) which is engageable by a locking member to lock a post in position. The support 36 may comprise a single metal blank bent to the shape shown.



GD 6 UUCUCC

2030613



2030613

2/3

FIG. 8.

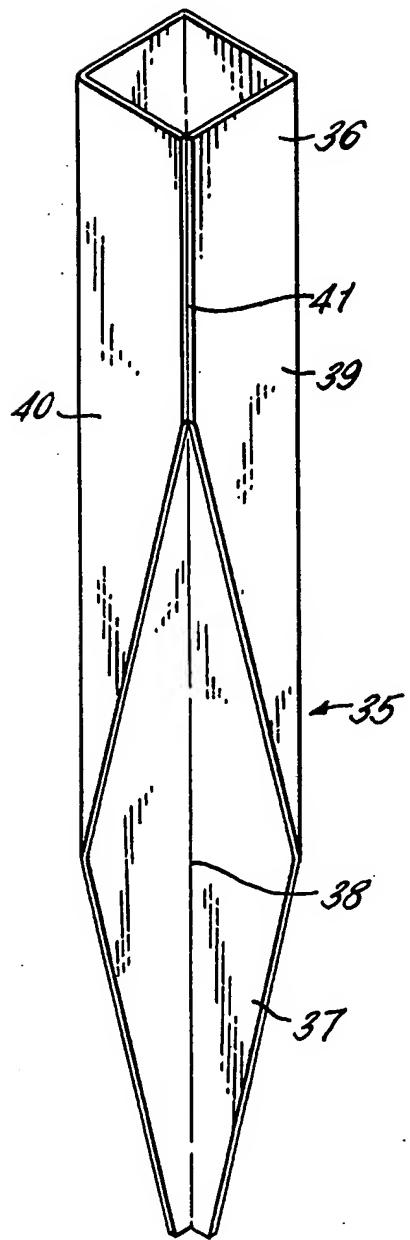
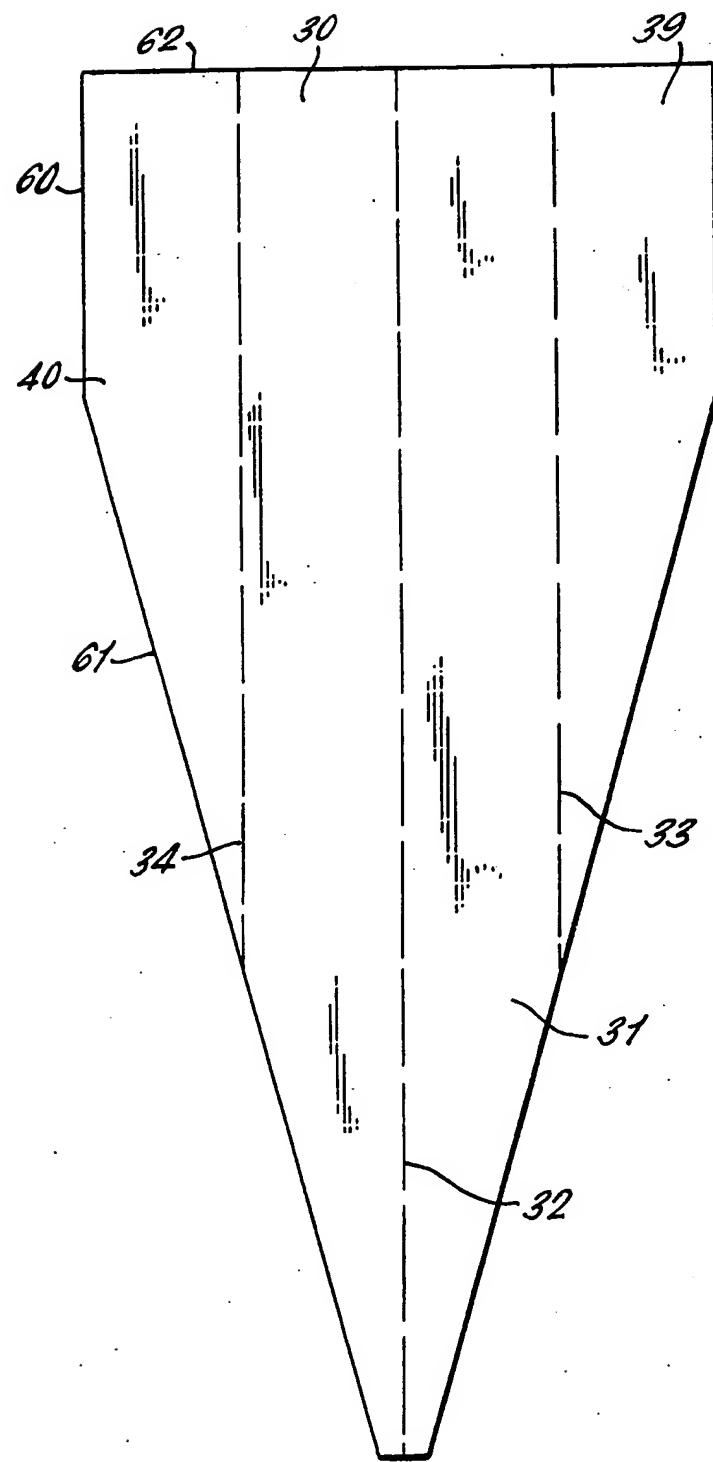


FIG. 9.



3/3

FIG. 10.

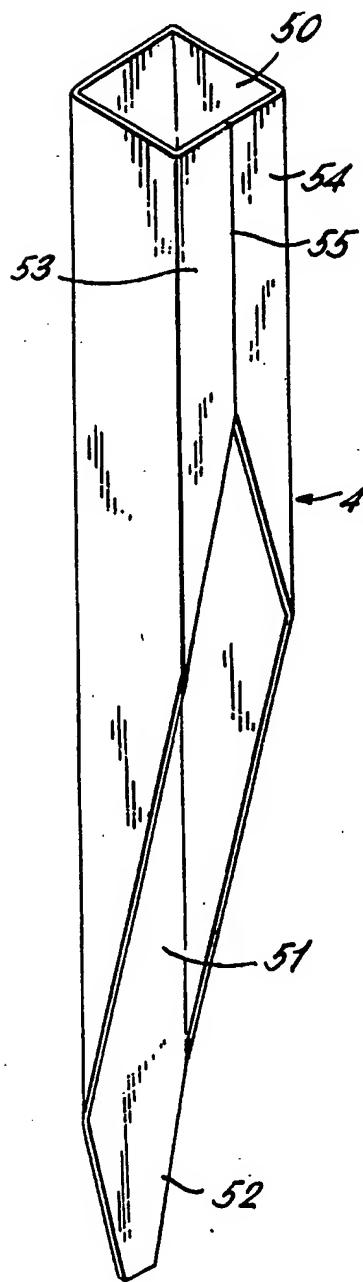
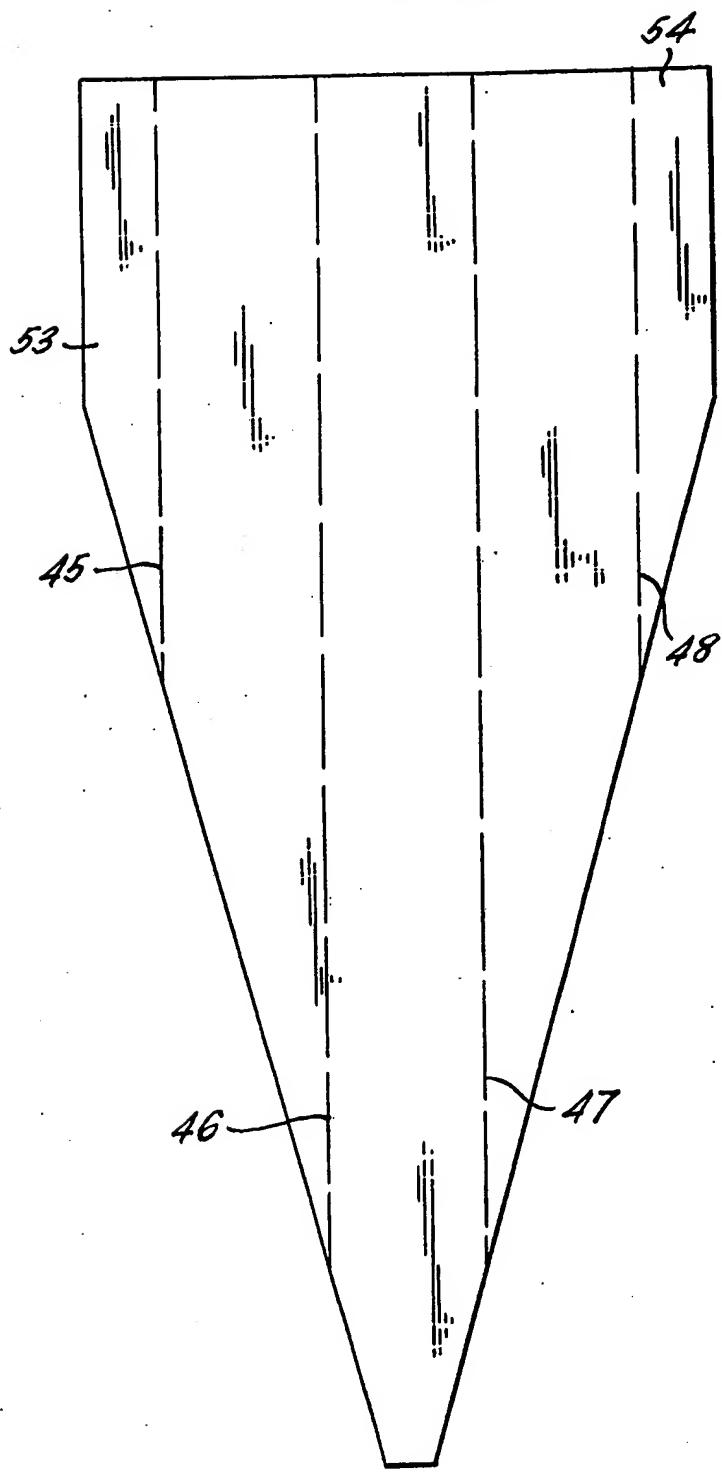


FIG. 11.



**SPECIFICATION**  
**Improvements in Post Supports**

The invention relates to post supports.

According to the invention there is provided a 5 post support comprising an elongate member of channel section including a ground engaging portion at one end and the other end defining with a further wall portion or portions a tubular housing for locating a post.

10 The further wall portion or portions may be integrally formed with the elongate member. There may be two further walls, one extending from each side of the channel section and secured the one to the other, by for example welding, 15 along a common edge. The post support may be made from a single blank of sheet material, for example mild steel.

Alternatively, the further wall portion or portions may be provided by one or more 20 separate wall members secured to the elongate member.

The elongate member may be of V-shaped cross-section, or of U-shaped cross-section.

The elongate member may taper uniformly 25 from said other end to said one end or alternatively the elongate member may taper from adjacent the base of the tubular housing to both said one end and said other end.

Flange means may be provided on the further 30 wall portion or portions at the base of the tubular housing to provide an abutment for supporting the base of a post.

The post support may comprise locking means capable of locking a post in position in the tubular 35 housing. The locking means may comprise an over-centre locking member rotatably mounted on the tubular housing the arrangement being such that in use, and when in position is locked by the locking member.

40 The further wall portion or portions may extend beyond the other end of the first member to provide a post integrally formed with the post support.

By way of example three embodiments of a 45 post support and modifications thereto according to the invention will now be described with reference to the accompanying drawings in which:—

Figure 1 is a perspective view of a post 50 support;  
Figure 2 is a sectional view along the line II—II of Figure 1;  
Figure 3 is a side view of part of a modified post support;  
55 Figure 4 is a view in the direction of the arrow of Figure 3;  
Figure 5 is a side view of part of a further modification of a post support;  
Figure 6 shows a locking member;  
60 Figure 7 shows part of a post locked in the post engaging portion of a post support by the locking member of Figure 6;  
Figure 8 is a perspective view of a third embodiment of a post support;

65 Figure 9 is a plan view of a blank for making a post support of Figure 8;  
Figure 10 is a perspective view of a fourth embodiment of a post support; and  
Figure 11 is a plan view of a blank for making 70 the post support of Figure 10.  
As shown in Figure 1, a post support generally indicated at 10 comprises an elongate first member 11 of V-shaped cross-section tapering towards one end 12 to provide a ground engaging portion. The first member 11 tapers uniformly from the other end 13 of the first member 11 towards the end 12. The first member 11 is made of mild steel, although it will be appreciated that another suitable material may be used. Wing 80 portions of the first member 11 adjacent the other end 13 may be bent to provide a W-shaped cross-section for the first member adjacent the other end.  
A second member 14, also of V-shaped cross- 85 section, is secured to the first member 11 adjacent the end 13 thereof to provide a tubular housing for the post support 10. The second member 14 is also of mild steel, and is secured to the first member 11 by welding. It will be appreciated, however, that a suitable material other than mild steel may be used for the member 14 and that the second member 14 may be secured to the first member 11 by means other than welding.  
95 As shown in Figure 2, the tubular housing is square in cross-section and therefore suitable for engagement by a post of square cross-section. It will be appreciated that the cross-section of the tubular housing may be varied.  
100 Figures 3 and 4 show a modified post support in which flanges 15 and 16 are provided on the base of the second member 14 to provide an abutment for a post engaged in the tubular housing. The flanges 15 and 16 are conveniently integrally formed with the second member 14.  
105 Figure 5 shows a further modified post support in which the first member 11 tapers from adjacent the base of the tubular housing toward both the end 12 and the end 13 of the first member 11. This modification has the advantage that the upward projecting corners of the first member 11 at the end 13 are not as sharp as in the embodiment of Figure 1.  
The second member 14 is provided with a slot 115 17 having a wide central portion 18 and narrow end portions 19 and 20. A metal locking member 21 (Figure 6) is engageable in the slot 17 and the locking piece may be rotated in the slot with one end piece on each side of the member 14 and 120 cross member 22 engaged in the wider portion 18 of the slot. In this way, when a post 23 (Figure 7) is inserted in the tubular housing of the post support the locking member 21 is rotated so that the end piece inside the tubular housing is moved 125 downwardly into position shown in Figure 7.  
Removal of the post 23 from the tubular housing would require rotation of the locking member but the locking member cannot rotate due to the material of the post 23 pressing it against the

second member 14. Thus the post 23 is locked automatically in the tubular housing of the post support 10.

By securing an extended second member 14 to the first member 11 it will be appreciated that an integral post and post support is provided.

As shown in Figure 9 a blank for making second embodiment of a post support is of mild steel or other suitable material and shaped to provide a rectangular portion 30 and a tapered portion 31. Broken lines 32, 33 and 34 indicate the lines about which the metal of the blank must be bent in order to produce the post support of Figure 8.

15 The post support of Figure 8, generally indicated at 35, comprises a tubular housing 36 and a tapered ground engaging portion 37 of V-shaped cross-section extending from the tubular housing 36.

20 The post support 35 is made by folding the blank about a central line 32 to produce angle 38 common to both the ground engaging portion 37 and the tubular housing 36, and by bending wings 39 and 40 about lines 33 and 34 respectively to complete the tubular housing 36. The wings 39 and 40 are welded to one another along seam 41.

As shown in Figure 11, the blank of Figure 9 may be folded differently to produce a post support (Figure 10) of a different configuration 30 from that of Figure 8. Broken lines 45, 46, 47 and 48 in Figure 11 indicate how the blank is to be folded.

As shown in Figure 10, the folded blank of Figure 11 produces a post support generally indicated at 49 having a tubular housing 50 and a ground engaging portion 51 extending from the tubular housing 50. The ground engaging portion 51 is generally of channel-section and has a tongue 52 extending below the portion of channel-section. Wings 53 and 54 are bent around lines 45 and 48 respectively to meet the tubular housing 50. The wings 53 and 54 are welded together along seam 55.

45 While the post supports of Figures 8 and 10 are shown with tubular housing 36 and 50 respectively of square cross-section, it will be appreciated that these tubular housings can be formed with other cross-sections. For example, the blanks could at least in part be formed around 50 a curved former to produce tubular housings at least a part of which is of circular cross-section.

Furthermore, post supports according to the invention may be made from the blank of Figure 9 altered so that the wing 40 is not cut at edge 60 55 but continues to form an apex between edges 61 and 62. The blank is bent about the lines 32, 33 and 34 as previously described, but the extra triangular portion of the wing 40 overlaps the wing 39 and this allows rivets to be used to 60 secure the wings 39, 40 together.

Alternatively, a post support according to the invention of the type shown in Figure 8 may be made from a metal tube by cutting one end normal to the longitudinal axis of the tube and the

65 other end obliquely to the longitudinal axis of the tube.

The post supports of Figures 8 and 10 may include locking means capable of locking a post in position in the associated tubular housings and 70 the locking means may be as described with reference to and as shown in Figures 1 to 7.

The advantages of these embodiments of a post support according to the invention and the modifications to it are that it is simple to

75 manufacture and strong when completed. The feature that a single member forms the ground engaging portion and part of the tubular housing means that when the post support is inserted in the ground the corner or corners of the ground 80 engaging portion will correspond exactly to a corner or corners of the tubular housing when the support has been put in the ground. This allows easier alignment of the post supports than has hitherto been possible. Since the ground 85 engaging portion is of channel section it has no solid centre core which permits easier insertion into the ground and easier removal from the ground. Since the tubular housing has no solid base, any water entering the post engaging 90 portion can drain straight into the ground.

#### Claims

1. A post support comprising an elongate member of channel-section including a ground engaging portion at one end and the other end 95 defining with a further wall portion or portions a tubular housing for locating a post.

2. A post support as claimed in claim 1 comprising a separate wall member secured to said elongate member at or adjacent the other 100 end thereof to define the tubular housing.

3. A post support as claimed in claim 2 wherein the separate wall member is of V-shaped cross-section.

4. A post support as claimed in any preceding 105 claim in which the elongate member tapers uniformly from said other end to said one end.

5. A post support as claimed in any one of claims 1 to 3 in which the elongate member tapers from adjacent the base of the tubular 110 housing to both said one end and said other end.

6. A post support as claimed in any one of claims 2 to 5 wherein the separate wall member extends beyond the other end of the elongate member to provide a post combined with the post 115 support.

7. A post support as claimed in claim 1 wherein the further wall portion or portions are integrally formed with the elongate member.

8. A post support as claimed in claim 7 comprising two further wall portions, one wall portion extending from each side of the channel section and the wall portion being secured the one to the other along a common edge.

9. A post support as claimed in any preceding 125 claim wherein the elongate member is of V-shaped cross-section.

10. A post support as claimed in any one of claims 1 to 5 wherein the elongate member is of

generally W-shaped cross-section in the region of the tubular housing.

11. A post support as claimed in any one of claims 1 and 7 to 9 wherein the elongate member 5 is of U-shaped cross-section.

12. A post support as claimed in any preceding claim wherein the further wall portion or portions comprise flange means extending towards the elongate member at or adjacent the base of the 10 tubular housing to provide an abutment for supporting the base of a post.

13. A post support as claimed in any preceding claim wherein the tubular housing is of uniform cross-section.

15 14. A post support as claimed in any preceding

claim comprising locking means capable of locking a post in position in the tubular housing.

15. A post support as claimed in claim 14 in which the locking means comprise an over-centre locking member rotatably mounted on the tubular housing, the arrangement being such that the post may be inserted in the post engaging portion but when in position is locked by the locking member.

20 25 16. A post support substantially as hereinbefore described with reference to and as shown in Figures 1, 2, 6 and 8, or Figures 1, 2, 6 and 7 as modified by Figures 3 and 4 or Figure 5, or Figure 8, or Figure 9 of the accompanying drawings.

Printed for Her Majesty's Stationery Office by the Courier Press, Leamington Spa, 1980. Published by the Patent Office.  
25 Southampton Buildings, London, WC2A 1AY, from which copies may be obtained.